



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,398	07/15/2003	Johannes Hendrikus van Lith	VAND10	7671
7590	11/28/2006		EXAMINER	
Ryan A. Schneider Troutman Sanders LLP Bank of America Plaza, Suite 5200 600 Peachtree Street, N.E. Atlanta, GA 30308-2216			CHARLES, MARCUS	
			ART UNIT	PAPER NUMBER
			3682	
			DATE MAILED: 11/28/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/619,398	VAN LITH ET AL.	
	<b>Examiner</b>	Art Unit	
	Marcus Charles	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 12 September 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-21 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

This action is responsive to the amendment filed 9-12-2006, which has been entered.

Claims 1-21 are currently pending.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-2 and 19-20 are rejected under 35 U.S.C. 102(a) as being anticipated by JP (63-280946) to Kino discloses the claimed invention (see figs. 1-2 and 3) including a convex transition region (2d) comprising two parts having different radii curvature (see attached drawing) such that the first radius at the side surface is larger than that of the second radius at the side of the pulley contact surface.

In claim 2, it is apparent that a line inherently intersects the pulley sheave contact surface. It should be noted the line inherently passes through the intersection of the pulley-engaging surface the transition region. In most cases the line is invisible in the region of the tangent of the line representing the pulley contact surface and the point of contact between the transition region and the pulley contact surface. As shown in the previous rejections, it is apparent that the transition region as shown in the attached drawings is defined between and interconnects the supporting surface and the pulley sheave contact surface.

In claims 19-20, JP 63-280946) to Kino clearly discloses the drive belt and the

continuously variable transmission, wherein the drive belt comprises two endless carriers (3).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP (63-280946). JP (63-280946) to Kino discloses the claimed invention above but fails to disclose the ranges of the radii of curvature for the first and second radii. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the radii of curvature for the first and second radii so that each one has a range as recited by the claimed invention, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

5. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 63-280946) to Kino in view of Yagasaki et al. (6,110,065). JP (63-280946) does not disclose the pulley contact surface of the belt element is corrugated by means of bulges. Yagasaki et al. discloses a CVT (Fig. 7) comprising belt (E) elements that are corrugated by means of bulges (2b) on the pulley contact surface in order to prevent shock loading and to minimize frictional wear. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the pulley contact

face of the belt element of Kino (63-280946) so that it is corrugated by means of bulges in view of Yagasaki et al. in order to prevent shock loading and to minimize frictional wear.

***Response to Arguments***

6. Applicant's arguments filed 9-12-2006 have been fully considered but they are not persuasive. Applicant contended that Natsushiro et al. fails to disclose the transition surface having two different radii and that due to the scale of the figures, the two different radii cannot be discerned. In response, it should be noted that fig. 1 of Natsushiro et al. clearly shows that the transitional region has two different curvatures. One of ordinary skill in the art would distinguish the two different radii. Irrespective of the scale of the drawing, it can be clearly seen that a transition region between 2d and 2b exist. There is a small radius as illustrated, joining a larger radius. The larger radius joins the supporting surface (2d) while the smaller radius joins the pulley-contacting surface (2b). Therefore for reasons given above the rejection is deemed proper.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 3682

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

  
Marcus Charles  
Primary Examiner  
Art Unit 3682  
November 24, 2006